

ABSTRACT

An amplifier circuit using an adaptive bias control comprises an envelope detector for detecting an envelope of an input signal from a coupler, envelope shaping circuits for transforming of the envelope voltage from the envelope detector. The one transformed envelope voltage is applied to a drain bias for the peaking amplifier and the other is add by V_{DC} to be applied to a gate bias for the carrier amplifier. In the Doherty amplifier, the gate voltage of the peaking amplifier and the drain voltage of the peaking amplifier are controlled in accordance with the input signal envelope to maximize efficiency with a desired linearity.